



PCT

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#17

 DATE: 04/15/2003  
 TIME: 13:58:26

 RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/10/019,284A

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3 <110> APPLICANT: IZUI, MASAKO  
 4 SUGIMOTO, MASAKAZU  
 5 KURAHASHI, OSAMU  
 6 NAKAMATSU, TSUYOSHI  
 8 <120> TITLE OF INVENTION: DNA ENCODING SUCROSE PTS ENZYME II  
 10 <130> FILE REFERENCE: 217677US0PCT  
 12 <140> CURRENT APPLICATION NUMBER: US 10/019,284A  
 C--> 13 <141> CURRENT FILING DATE: 2002-06-18  
 15 <150> PRIOR APPLICATION NUMBER: JP 11-189512  
 16 <151> PRIOR FILING DATE: 1999-07-02  
 18 <160> NUMBER OF SEQ ID NOS: 21  
 20 <170> SOFTWARE: PatentIn version 3.1  
 22 <210> SEQ ID NO: 1  
 23 <211> LENGTH: 5969  
 24 <212> TYPE: DNA  
 25 <213> ORGANISM: Brevibacterium lactofermentum  
 27 <220> FEATURE:  
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161 1 5 10 15
163 gaa gac aac att gtc gcc gcc gca cac tgt gca acg cgt tta cgc ctc 3874
164 Glu Asp Asn Ile Val Ala Ala Ala His Cys Ala Thr Arg Leu Arg Leu
165 20 25 30
167 gtg ctc aaa gac acc aag gat gtg gat cgc caa agt ctg gat gat gat 3922
168 Val Leu Lys Asp Thr Lys Asp Val Asp Arg Gln Ser Leu Asp Asp Asp

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175	gtc ggg cca ggc gat gtg gat cat gtt ttc aaa gaa ctc gat gac gca			
176	Val Gly Pro Gly Asp Val Asp His Val Phe Lys Glu Leu Asp Asp Ala			
177	65	70	75	4066
179	acc tcc aaa gac atc gct gtg tcc aca gag cag ctc aaa gat gtt gtg			
180	Thr Ser Lys Asp Ile Ala Val Ser Thr Glu Gln Leu Lys Asp Val Val			
181	85	90	95	4114
183	gct aac aac gcc aac tgg ttc agc cgt gct gtg aag gta ttg gcg gac			
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185	100	105	110	4162
187	att ttc gtc ccg ctg att cca atc ttg gtt ggt ggc ggt ctg ctg atg			
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189	115	120	125	4210
191	gct atc aac aat gtg ttg gtt gcg cag gat ctg ttc ggt ccg caa tca			
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195	ctg gtg gag atg ttc cct cag atc agc ggt gtt gct gag atg atc aac			
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199	ctg atg gca tct gcg ccg ttc gcg ttc ttg cca gtg ttg gtt ggt ttc			
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207	ggt atg gcg atg gtg ttc cca acc ctg gtt aac ggc tac gac gtg gcc			
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211	gcc acc atg acc gcg ggc gaa atg cca atg tgg tcc ctg ttt ggt ttg			
212	Ala Thr Met Thr Ala Gly Glu Met Pro Met Trp Ser Leu Phe Gly Leu			
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215	gat gtt gct caa gct ggt tac cag ggc acc gtg ctt cct gtg ctg gtg			
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220	Val Ser Trp Ile Leu Ala Thr Ile Glu Lys Phe Leu His Lys Arg Leu			
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223	atg ggc act gca gac ttc ctg atc acc cca gtg ttg act ctg ctg ctc			
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225	260	265	270	4642
227	acc ggc ttc ctt acg ttc att gct att ggt cca gca atg cgc tgg gtg			
228	Thr Gly Phe Leu Thr Phe Ile Ala Ile Gly Pro Ala Met Arg Trp Val			
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231	ggt gac ttg ctg gca cac ggt ctg cag gga ctc tat gat ttc ggt ggt			
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239	act	ggt	ctg	cac	cag	tcc	ttc	ccg	cca	att	gag	ctg	gag	ctg	ttc	aac	4786
240	Thr	Gly	Leu	His	Gln	Ser	Phe	Pro	Pro	Ile	Glu	Leu	Glu	Leu	Phe	Asn	
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243	cag	ggt	gga	tcc	ttc	atc	ttc	gca	acc	gca	tcc	atg	gcc	aat	atc	gcg	4834
244	Gln	Gly	Gly	Ser	Phe	Ile	Phe	Ala	Thr	Ala	Ser	Met	Ala	Asn	Ile	Ala	
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251	ctc	aag	ggc	ctt	gca	ggt	gct	tca	ggt	gtc	tcc	gct	ggt	ctt	ggt	att	4930
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255	aca	gag	cct	gcg	atc	ttc	ggt	gtg	aac	ctt	cg	ctg	cg	tgg	ccg	ttc	4978
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267	ggt	tct	att	gat	gct	cca	gat	atg	gtc	atg	ttc	ttg	ggt	tgc	gcg	gta	5122
268	Val	Ser	Ile	Asp	Ala	Pro	Asp	Met	Val	Met	Phe	Leu	Val	Cys	Ala	Val	
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271	ggt	acc	ttt	gtc	atc	gca	ttc	ggc	gca	gcg	att	gct	tat	ggc	ctt	tac	5170
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275	ttg	ggt	cg	cg	aac	ggc	agc	att	gat	cca	gat	gca	acc	gct	gct	cca	5218
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280	Val	Pro	Ala	Gly	Thr	Thr	Lys	Ala	Glu	Ala	Glu	Ala	Pro	Ala	Glu	Phe	
281					485					490						495	
283	tca	aac	gat	tcc	acc	atc	atc	cag	gca	cct	ttg	acc	ggt	gaa	gct	atc	5314
284	Ser	Asn	Asp	Ser	Thr	Ile	Ile	Gln	Ala	Pro	Leu	Thr	Gly	Glu	Ala	Ile	
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287	gca	ctg	agc	agc	gtc	agc	gat	gcc	atg	ttt	gcc	agc	gga	aag	ctt	ggc	5362
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291	tca	ggt	ggt	gcg	atc	gtc	ccc	acc	aag	ggg	cag	ctg	ggt	tca	cca	gtg	5410
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295	agc	gga	aag	atc	gtg	gtg	gcc	ttc	cca	tct	ggt	cac	gct	ttc	gca	gtc	5458
296	Ser	Gly	Lys	Ile	Val	Val	Ala	Phe	Pro	Ser	Gly	His	Ala	Phe	Ala	Val	
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305                               580                               585                               590
307 aag cag ggc gat gaa gtc aaa gca ggg gag ctg ctg tgt gaa ttc gat      5602
308 Lys Gln Gly Asp Glu Val Lys Ala Gly Glu Leu Leu Cys Glu Phe Asp
309                               595                               600                               605
311 att gat gcc att aag gct gca ggt tat gag gta acc acg ccg att gtt      5650
312 Ile Asp Ala Ile Lys Ala Ala Gly Tyr Glu Val Thr Thr Pro Ile Val
313                               610                               615                               620
315 gtt tcg aat tac aag aaa acc gga cct gta aac act tac ggt ttg ggc      5698
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317 625                               630                               635                               640
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321                               645                               650                               655
323 gtg cca gca aca cca taagttgaaa ccttgagtgt tcgcacacag gttagactag      5801
324 Val Pro Ala Thr Pro
325                               660
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374                               130                              135                              140
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